

Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

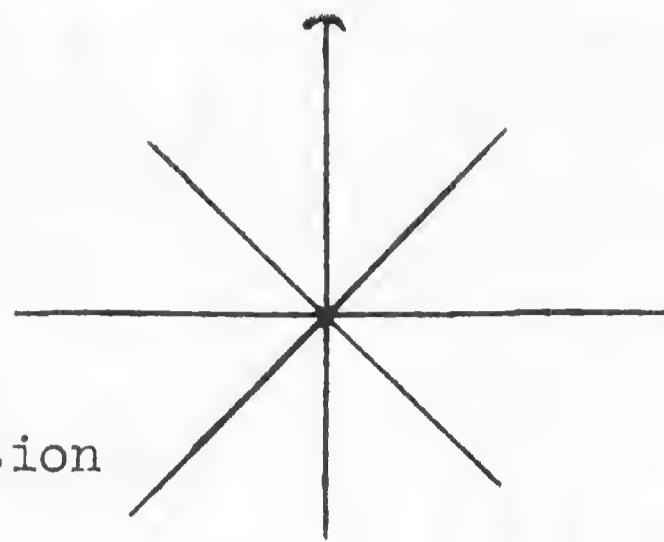
OBSERVERS:

Lewis  
DeLong  
Brownell

SPECIMEN  
or

Date 2 Dec 67  
Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1000					Begin observations off Pt. Loma
03	Cal Gull	2-	an		Ad following
	Gull sp	4-	ee		"
12	Heermanns	1-	ca		Imm
14	Bonaparts	2-	S		
16	Br Pel	14-	N		
16	Cormorant	1-	E		
18	Br Pel	20-	N		
20	Bonaparts	1-	E		
22	Br Pel	8-	NW		
25	Gull sp	8-	ee		on H <sub>2</sub> O
27	Taeger sp	1-	SW		
30	Br Pel	95-	N		
	Cormorant	2-	N		3 — together
31	Br Pel	125±25	NW		
32	Cormorant	15-	NW		
32	"	14-	NW		
33	Br Pel	70±10	IVW		
33	" "	24-	IVW		
33	Cormorant	20+	NW		
35	" "	2-	NW		
35	Br Pel	13-	IVW		
36	" "	12-	NW		
39	" "	22-	NW		
39	Bonaparts	4-	S		
43					cal 5 sec in porpoising (1)
44	Br Pel	83-	NW		All Ad
45	Bonaparts	2-	S		
46	Br Pel	30-	NW		
51	Heermanns Gull	1-	ca		on H <sub>2</sub> O Ad
55	Cal Gull	1-	ee		Ad "
1100	Gull sp	15-	ee		
03	Bonaparts	2-	W		on H <sub>2</sub> O
06	Large Tern	2-	SW		Caspian, Royal -
10	Br Pel	60+			
	W. Gull	200±80-			
	Heermanns Gull	100±25			
	Cormorant	2-			
	Loom sp	7-			
20	Sabins Gull	1-	ee		on Kelp
23	Binot Ad Klet	1-	ee		
26	Bonaparts Gull	1-	ee		
27	" "	1-	ee		
31	Cormorant	1-	E		
37	Br Pel	11-	NW		
43	Gull sp	4-	ee		on H <sub>2</sub> O
50	Heermann Gull	2-	W		
52	Br Pel	6-	ee		on H <sub>2</sub> O
1200	"	2-	W		on H <sub>2</sub> O
1201	Heermann Gull	2-	W		
1205	Br Pel	1-			on H <sub>2</sub> O
10	"	7-			
23	"	1-	N		



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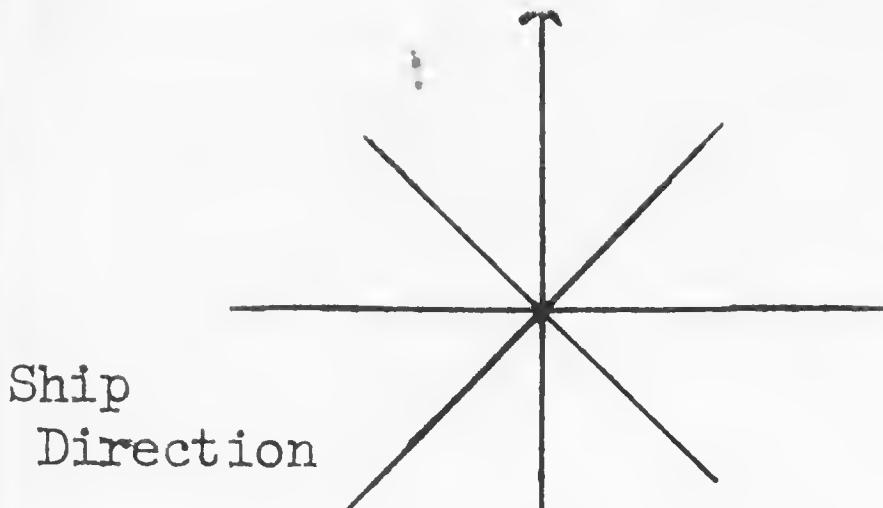
SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

Date 2 Dec. 1967  
Pg. # 2

SPECIMEN

or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1231	Br Pel	3-	N		
32	Cormorants	1-	S		
47	West. Gull	1-	N		
54					adult
1307	Hermann's Gull	1-	S		4-6 <u>Lagenorhynchus obscurus</u> TO THE EAST SWAN ACROSS BOW
1310	Gull spp.	30±10	ee		ALL TOOK BREATH SCOW SWIMMING ALONG ONLY A COUPLE OF FEET BELOW
1310					THE SURFACE - 2 SUBGROUPS. MAY HAVE BEEN FEEDING WHEN FIRST NOTED AS
1310	Br Pel	10±2	ee		THEY WERE STATIONARY.
1320					ALL ON H <sub>2</sub> O - feeding -
1325	Br Pel	6-			SEA LION ? - feeding ? DIVING
	Gull spp.	6-	ee		ALL ON H <sub>2</sub> O - feeding
27	Br Pel	1-	ee		SEA LION - FLOATING AT SURFACE WHEN FIRST NOTED - THEN SWAN TO EAST
29	"	1-	S		ON H <sub>2</sub> O 3 together
35	Br Pel	12-	e		ON H <sub>2</sub> O - adult
FF	Hermann Gull	11-	ee		
	Pel Cormorants	4-	ee		Feeding together on H <sub>2</sub> O
39	Pom. Jaeger	1-	ee		
	Parasitic Jaeger	2-	ee		Int Ad
44	Fulmar	1-	ee		Being chased by Pom. Jaeger
49	Cathartes	1-	ee		on H <sub>2</sub> O Davis
	Murru				
50	Parasitic Jaeger	1-	ee		
56	Common Murru	1-	ee		
58		1-			
1400	Common Murru	1-	ee		<u>Globicephala</u> sp. 40±10 in 3 or 4 subgroups - more or less
02					STATIONARY ON SURFACE - Feeding? DURATION 30-45 second
05	Br Pel	15-	ee		MIXED AGES - CALF OR YOUNG - several adult male
07	Small Albat.	1-	N		cut seal skin purposely (1)
1430	Br. Pelican	14-			
	Large gull	6-			
	Gannets	1-			
1440		1-			Zalophus - new - floating mostly
1500	P-L Kittiwake	1-	887		87 megalopt.
1501	Puffin	1-			
1520					
1530					
1610					
1625	Pom. Jaeger	15-			Clare also. OBS. IS STARTED AGAIN
					<u>Globicephala</u> sp. 75±15 all noted were medium size range
					moving slowly south flank in line 4 or 5 subgroups
					ad. 14 p L.
					SI-MNH-958-e
					Rev. 5-66



OBSERVERS:

SMITHSONIAN INSTITUTION  
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AT SEA DAILY LOG - E

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DIR. BAND NO. REMARKS

Date 2/22  
Pg. # 3

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1630	Balearica grisea	1-			in
1633	Penguin	2-			121. 16 ♂ 1 in

1985-18

3 Dfc - Enter at Elm 1135

Grid

BFA - 2

Phalarope 20

Fulmar 5

Sooty Shear 2

Pale-fronted Shear 1

Rheas, Auk 2

Herring gull 0

Loon sp

WRSP

Blk-t. turnstone

B-L. Kittiwake

S. tern Pet

Gull sp

Pom. Gull

32

S-3

5

21

10

4

1

3

15

15

90

1

1

25

25

3

1

1

1

1

1

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S-2

20

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6

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1

6'

21'

11'

10' (all dark)

15'

3'

24'

1'

28'

1'

1'

1'

1'

1'

1'

2'

1'

1'

1'

1'

1'

1'

1'

1'

1'

1'

1'

1'

1'

1'

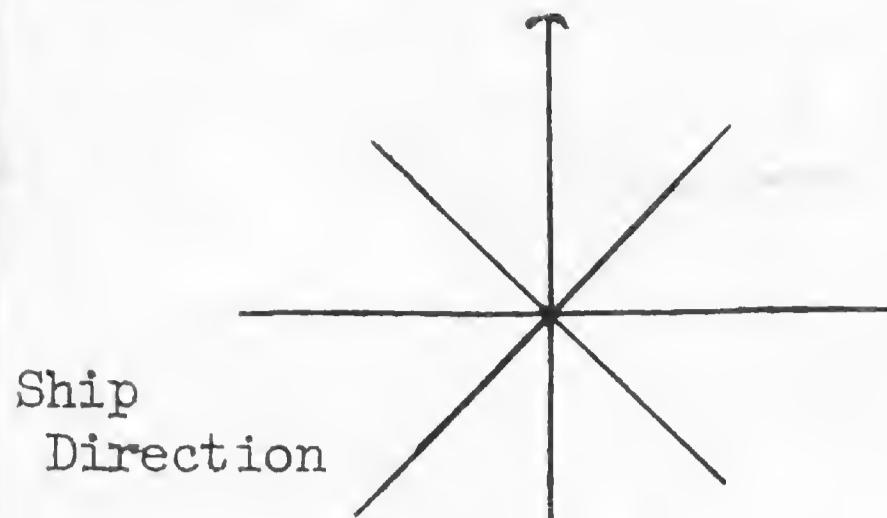
1'

1/35-1515

Section 3

1515-1700

Section 2



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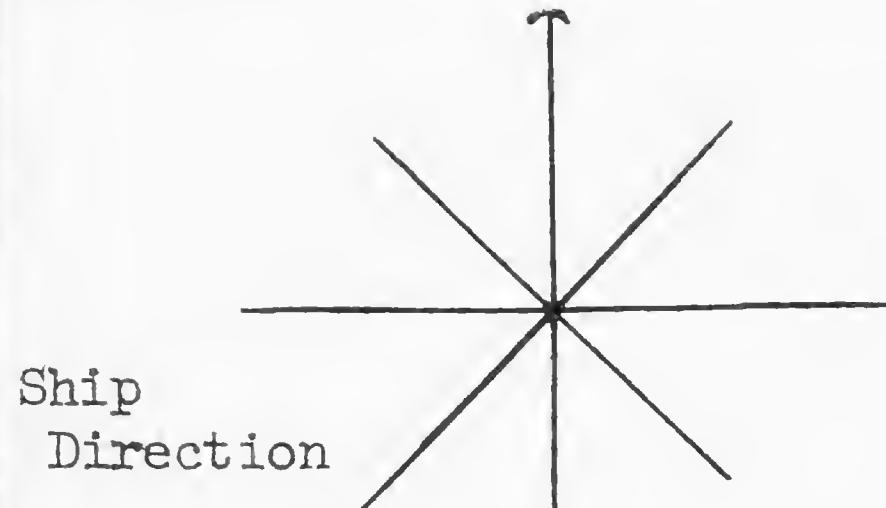
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S.R. - 186. Pt. Conception

Date 3 Dec 67  
Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0651					Sanri sea Large swells light high overcast
52	W. Gulls H. Gulls Cal Gulls	-30			Following - all identified but do not know each species possible
0704	R. Phal	5			
14	Gulls sp	50			adults winter plumage
14	Sooty Shear	1 -	NE		Same as above
0720	Phalarope	2	S		
0722	Guilimor	1 -	SW		
0730					Dall's Porpoise (Dall - Rel 2) - <del>20±5</del>
					Whales came to a stop Pushed water ahead; finally dispersed.
0735					Dall's Porpoise 15±5 - not breaking water but making a streak c. 6-8 ft of white water with the burst as they surfaced.
0747	Phalarope	1 -	SW		Probable rocks.
0758	New Zelan Buller's Pale foot Shear.	1 -	SW		Stellar Sea Lion - Bull - large. head straight out water - poss. of wings. for aft.
0800	Pomarine Jaeger	1 -			1 Ad, in turnstile place.
0810	Phalarope	10±10	SW		



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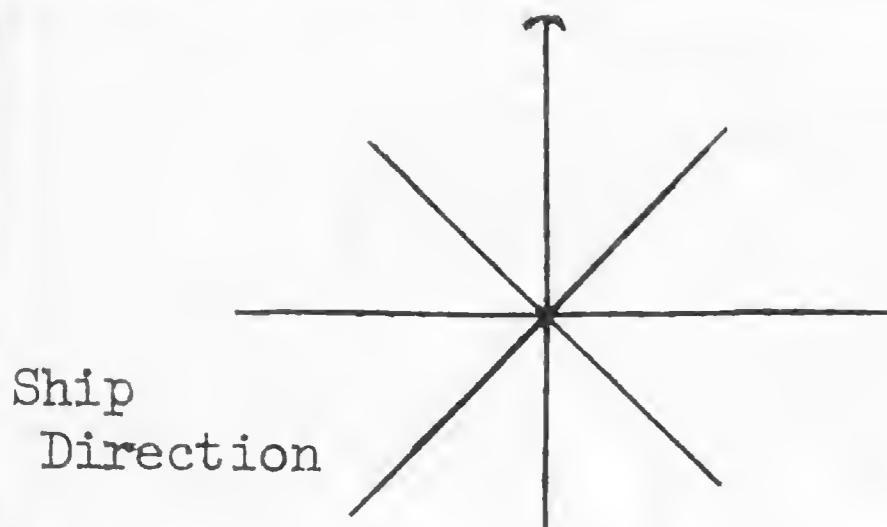
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Date 3 Dec 1917  
Pg. # 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0805	Pm gogn	1 -			SAd. Instruments & have
25	R. Phal	10 -			
27	Fulmar	1 -	ee		
32	R. Phal	25±5 -	ee		Davis
37	"	2 -	ee		
38	Shear?	1 -	ee		New Zealanders Pkts. Sooted
42	R. Phal	6 -	ee		
46	" "	20±2 -	w		
47	" "	3 -	ee		
53	Fulmar	1 -	ee		
54	R. Phal	3 -	ee		DA
56	Phal. sp	1 -	ee		
0907	Sooty Shear	1 -	ee		
37	" "	1 -	ee		In stronger
30	BFA	1 -	ee		
35	coconut	1 -	SE		Following white caps
38	R. Phal	1 -	w		
42	BLIS	1 -	ee		
0950	Phalarope	3 -	NW		Two
0956	Fulmar	1 -	88		DA.
1000					Long/Grbl - if trans. or if not - Water.
1000					Wester gulls & Herring gulls fill
1015	Phalarope	4 -	NW		Common - Califs. gone.
1016	Terns gull	2 -			
1017	Phalarope	17 -			Sitting on top - 1 Ad, 1 secad yr bird.
1022	Black-bellied	1 -	88		5; Hing. near & floating kelp.
1023	Herring gulls	3 -			both water - far water. - in
1025	North Phalarope	250±50	82		luding. - 2 ad. imm.
1026	<del>Black-bellied</del> gulls	2 -	2		on water - near floating kelp mass.
					on Hold near platforms. - white wing patch & white on wing base



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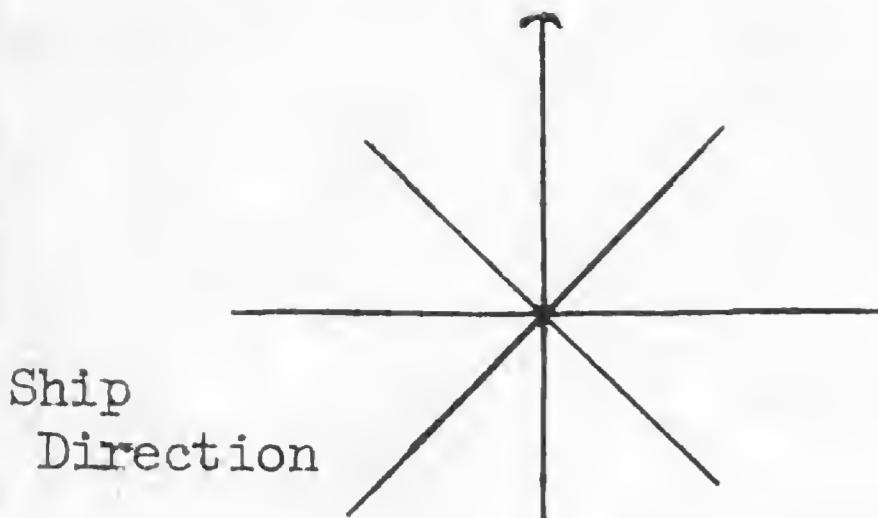
SPECIMEN

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Date 3 Dec/67  
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TIME SPECIES # DIR. BAND NO. REMARKS

1030	BFA	1-			Totally 2 - 1 w/k f / 1 Lw
1035	Rissa t.	1-	S		
1037	Phalarope	2-	SW		
1039	Sooty Shear	1-	SW		
1045					more than of 180° during an unusually steady period there were 28 Gulls counted. The median was on 1.5-2.0 miles. This reflects general abundance for this P.M. - although they have not been recorded.
1048	N. Phal.	5-	SE		flushed from H. H.
1050	"	7-	SW		
1051	Sooty Shear	1-	S		
1055	"	3-	N		
1058	N. Phal.	1-			into H. H. or a 6 inch piece of Kelp.
09	"	4-	S		
1110	Leuc. gull	1-	SE		Ad - f / young and down.
1115	Rissa t.	1-	S		imm - b/f ad on tail - back not settled
1122	Calif Gull	1-	SW		around bow - ad - defined



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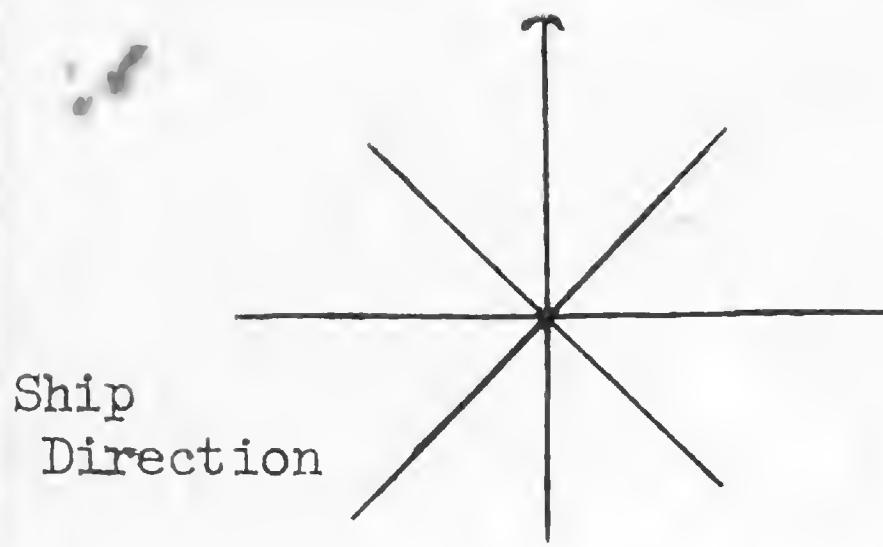
OBSERVERS:

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SPECIMEN  
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TIME SPECIES # DIR. BAND NO. REMARKS

1125	Herring Gull	1-	SE	2d.
1128				Have been in floating & esp patches
1130	N. Phalarope	2-		all Ar. - another app low - north.
1132	Phalarope	1-		in Adlt
1133	"	2-	SE SW	
Bird 1135				
1137	Phalarope	1	SE	Cone avoid to 270°
1138	Herring Gull	3		Adlt
1142	Phalarope ♀	4	S	
1150	"	2		on H, 4
1153	Fulmar	1	W	
1158	Sooty Shear	1	E	Cone w/ the windings
1207	Fulmar	1		
15	Phalarope SP	2	SE	Adlt.
25	Coty Shear	1	SW	46 H <sub>2</sub> O
27	Fulmar	1	SE	
28	Phalarope SP	1	SE	
30	Fulmar	2	SE	46 H <sub>2</sub> O PK
33				
46	BFA	2	SE	57 cm while 1 ca 40' flaps
1305	Rino A.	1	W	
106	footed Shear	1	SE	like Discovery tail with white bill. P. carmineus
10	R A	1	SE	46 H <sub>2</sub> O
12	Phalarope SP	10+	SE	



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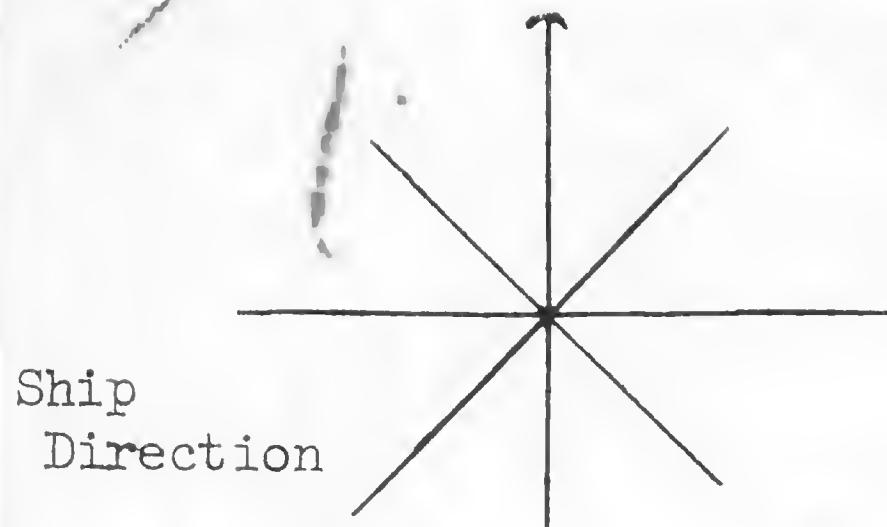
SPECIMEN

or

Date 3 Dec 67  
Pg. # 5

TIME SPECIES # DIR. BAND NO. REMARKS

1316	B#	1	or	0	
20	BFA	(3)	or		Follow
20	H. Gull	15	or		" Mosty Ad
27	Loon sp	1	SE		
41	Fulmar	1	ee		
43	WRSP	1	ee		
44	Fulmar	1	or		DK
FJ	45	LWRS	20+	or	Feeding - albatrosses landed + Friggy also
	50	Fulmar	1	ee	
	53	"	1	ee	
	56	"	1	ee	
	1400	Black Tern	1	ee	
	01	N. Phalarope	1	SE	
	05	BLIS	1	ee	
	06	BFA	1	W	
	08	St. Pet	1	ee	
11	Jacq SP	2	E		
1426	BFA	1			Total 5
1428	Sooty Shear	1	S		
1432	"	1	S		Not lined flight. <u>1435</u> - same
1456					bird flew west of the world
					Dall Porpoise (15) approached
					ship within 200 meters. Some fast
					water surfing as observed earlier.
1430-1440					assorted things L - small - sea cond. determining
1455	WRSP	1			
1504	Pomarine	1			Lucks - pelagic worn & bleached to near
1506	WRSP	1	SS		worn.
1507	"	1	SS		st. Dull pho
1515	W/	1	SS		



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TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1516	Fulmar	18			DK
1521	Sooty Shear	2.	as		
1530	"	2	W		by other. Joined above two and were following about 200-300 meters off port beam. Have been doing so for 15± min.
1545					Ca 24 Herring gulls following. They also 50/60 m. off. Temporarily abandoned this "flock" & landed Ca 50 m. to port. - Feeding.
1600					Two sooty shear still following.
1602	BFA				No 6- 2 white 2 dark, 2 wh.
1610	WRSP	15	W		
1615					Sooties followed until now.
44	Sooty Shear	10	SE		Seen to have deserted.
55	LWRSP	2	SE		
58	Sooty Shear	1	SE		
1700					Sunset close

4 Dec

BFA - 24

( $\frac{16}{12}$  dk ++)

LA - 1

Sooty Shear - 2

Phalarope - 4

R. Phal - 4

W RSP - 7

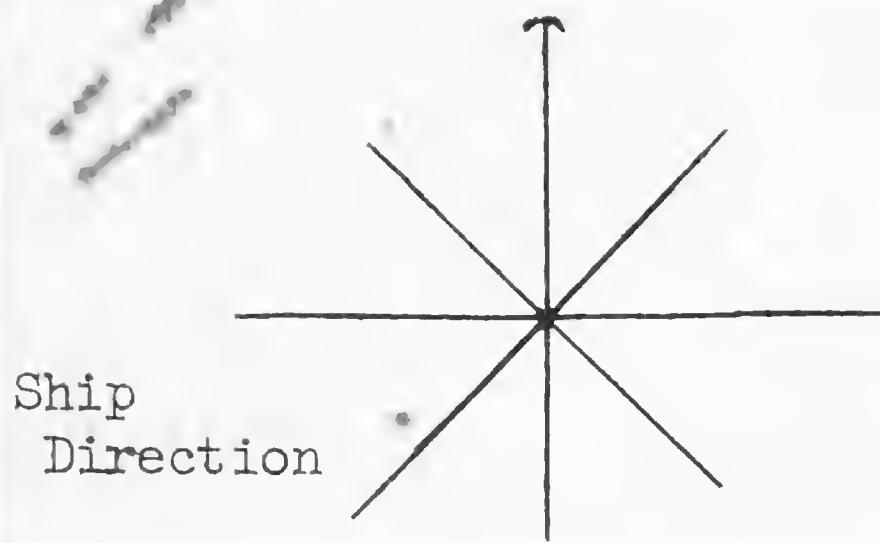
E-T Pet - 1

Yellow Bell - 1 1st yr

Herring Gull - 1 Ad.

45

SR-55 - Sect 1



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TIME SPECIES # DIR. BAND NO. REMARKS

0716					SR - key to also
0720	Sooty Shear	1 ✓	S		BFA - 3 = (WR, 1dK, 1unk)
0724	Sooty Shear	1 ✓	S		
0745	BFA	1 ✓			
0755	Phalarope	4 ✓	SE		W. & following
0802	LWRSP	2 ✓	SE		
0815	BFA	4 ✓			Total 8.
0915	LA	1 ✓			
30	Red Phal	1 ✓	NE		Following
35	G-W Gull	1 ✓	NE		Following Turn - 1st gr.
47	F-T Petrel	1 ✓	SE		
50					CC to S
1003	LWRSP	1 ✓	CC		
35	R. Phal	1 ✓	CC		
37	" "	2 ✓	NE		
1107	LWRSP	1 ✓	CC		
1405					CC to E
1430	BFA	17 ✓	3		
	LA	1 ✓	3		Following = 12 dK R - 1 dR
1455	LWRSP	2 ✓	CC		Ad following
1506	H. Gull	1 ✓	CC		
1613	G-W Gull	1 ✓	CC		Following 1st year
1630	BFA	7			Total 24 following + 1 Laysan
1703	LWRSP	1	CC		
1720					16 dK 2 dL
					55 - place obs.

5 Dec  
Langfjord  
seab.

BFA 2

Henry gull 15 (3 ad ♂ 12 18 2 yr birds)

Stom Pet 1

W RSP 5

Red Phal 2

Sooty Shear 2

Coots Pet 2

Shear Pet 1

Arctic Lnm 0

Phalarope sp.

Fulmar

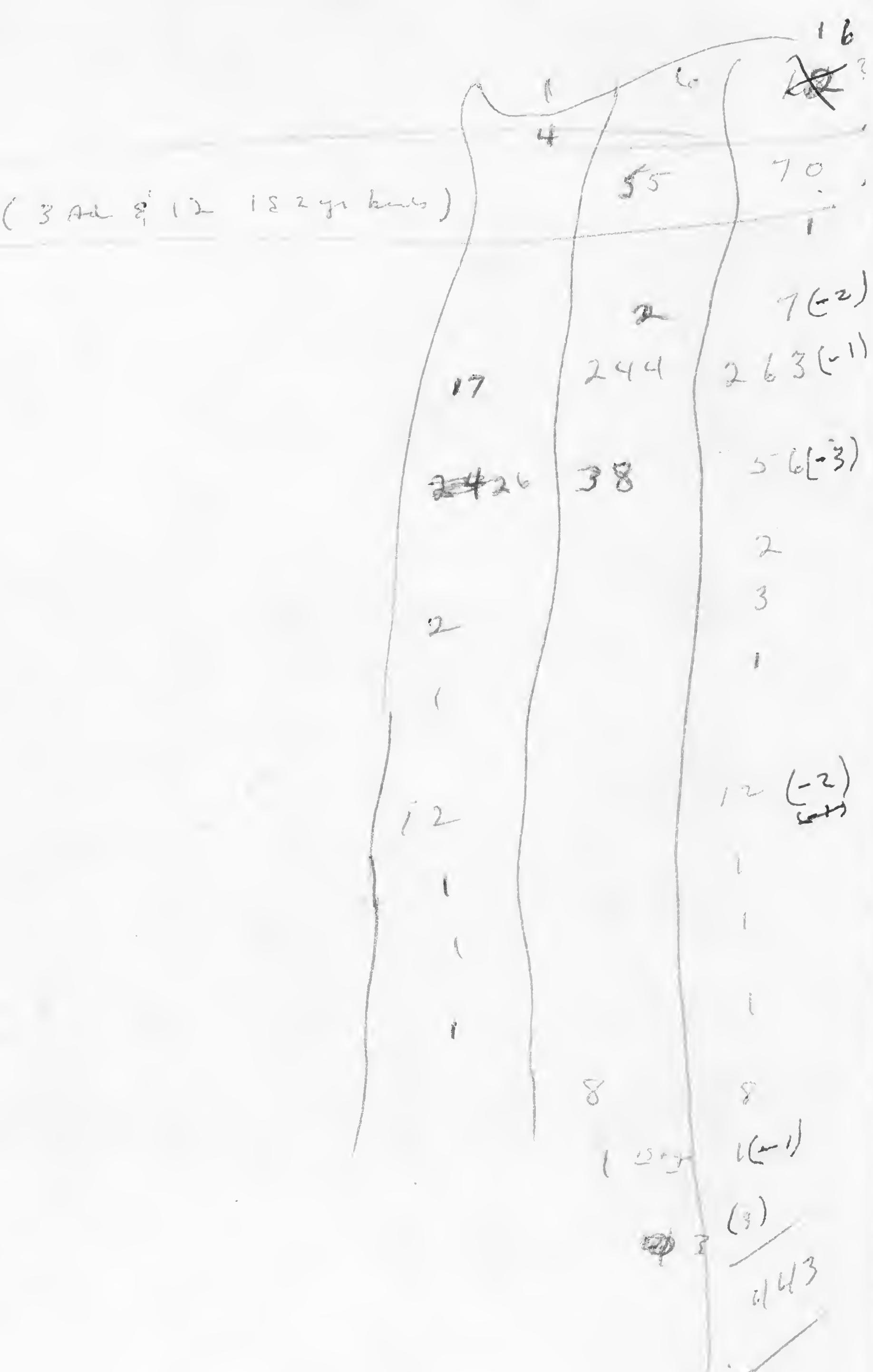
B L Kittiwake

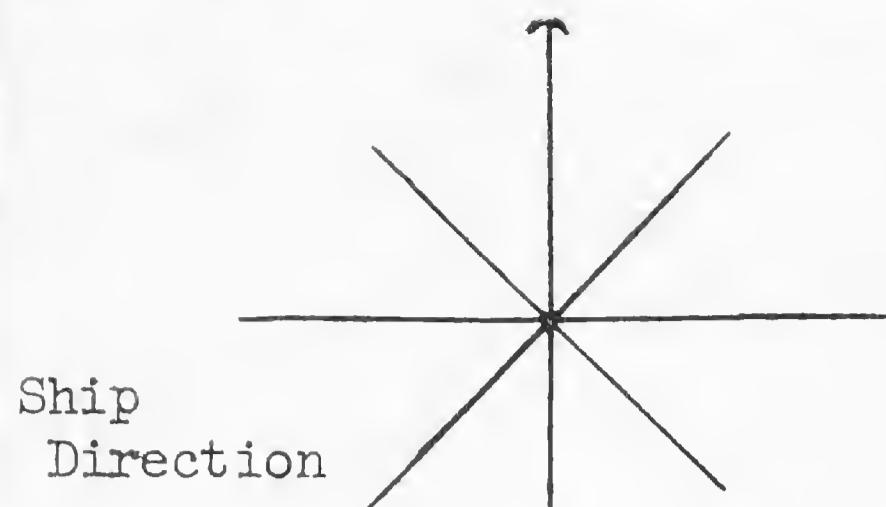
R-T Lnm

Gull sp.

St. L Gull

Xanth mew





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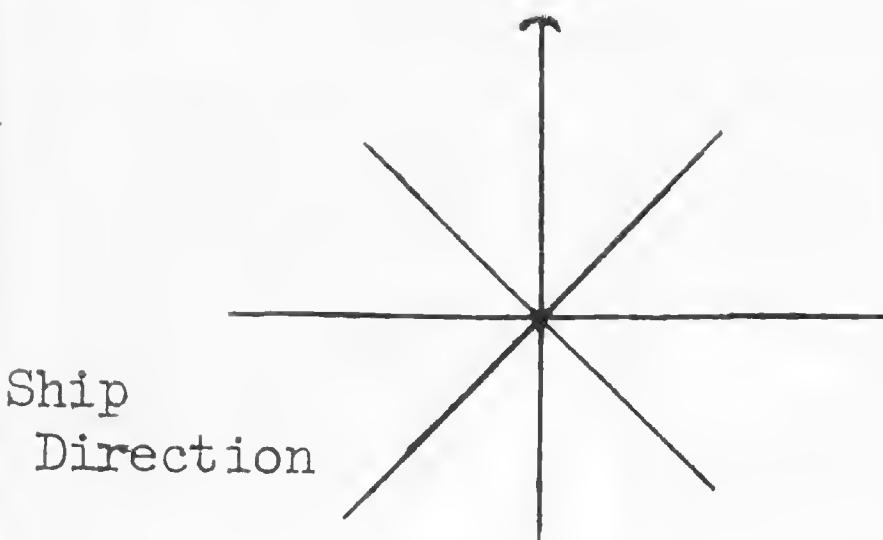
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TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0700					Sunrise begin observations
05	H Gull	4	SE		
	BFA	1	SE		
17	H Gull	9	SE		
30	BFA	2	SE		
37	SP?	1	SE		
0805	Leach's SP	1	SE		
25	" "	1	SE		
38	" "	1	SE		
53	H Gull	11	SE		
56	" "	15	SE		
0906	L A				Following 1 Ad rest 1st 2nd winter
16	R. Phal	1	SE		3 Ad
25	Sooty Shear	1	NE		Following
31	" "	1	SE		Rel 3
31	Leach's SP	1	SE		
		1	SE		
0946	Ki				
0950	WRS P	1			Killer whale 1 only
0954	Phal. n.	1	SSR	WR	14-18 ft. Dorsal ca 2.5 ft.
	so.	1	888		Saddle aft of Dorsal should blows not well defined, only small button way.
1010-1025					- M 0 B - Drill
1020					B 0 S - 2 DK 1 Lt
1045	Cook's Petrel	2	888		For off! identification more by behavior than normal. white underwings & belly ventral pterygia. mantle light gray. Behavior: short glides with little to moderate climb, turning blowing - shallow - flaps and gliding against air flows than other small pterodroma
1048	Slant pet	1	S		- sub Sooty Shear



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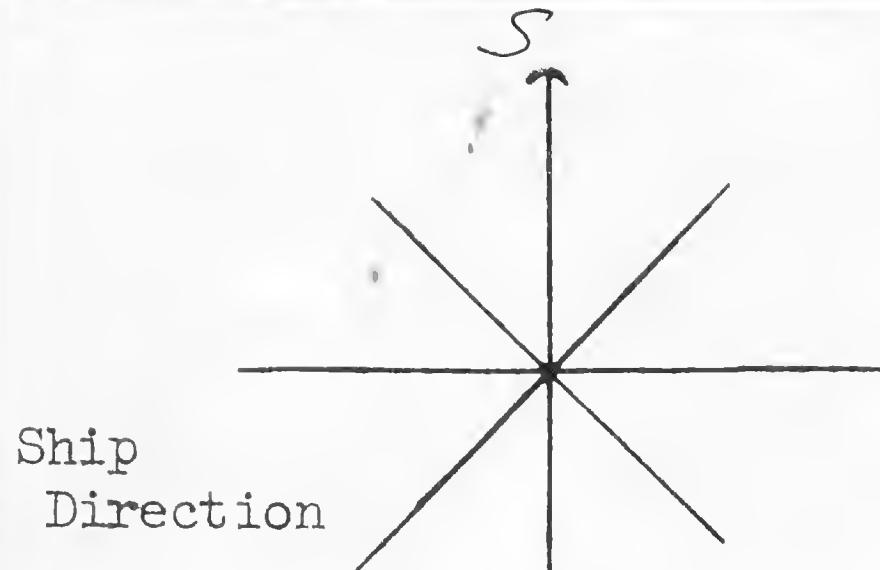
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1056	Arctic Loon	1	888	fl ew around for some time. Rel angle
1059	Sooty Shearwater	1	W	could not be seen. Angle of wing to body in fl g, Lt agreed with arctic. However the chance of occurrence of a <i>G. stellata</i> here is more probable than <u><i>G. arcticus</i></u> so we give it a reliability <u>2</u> .
1110	Phalacro	1		
1120	<del>birds</del>	2	888	Procellariids - Rel 2
1127	Phalacro	6		on H <sub>2</sub> O near patch of floating macroalgae
1130	"	3	888	
1132	Fulmar	1	888	DK. Rel 2 - Could have been Sooty
1140	LA	1	ee	
40	Phalarope sp.	1	NE	
48	Sooty Shear	1	E	but was very slow, probably feeding.
1200	R. Phalarope	2	ee	on H <sub>2</sub> O
03	BLK	1	W	Ad
05	R. Phal	1	ee	off H <sub>2</sub> O
10	" "	4	SE	
12				
13	R. Phal	6	ee	cc to S
15	BFA	4	ee	on H <sub>2</sub> O by log
16	Sooty Shear	1	SW	
17	" "	2	SW	
18	Phal sp	1	S	
19	R. Phal	1	ee	
20	Sooty Shear	1	ee	
23	" "	1	SW	eat on H <sub>2</sub> O Next to bulk
24	R. Phal	1	SW	
25	Sooty Shear	6	ee	
27	R. Ch. Loon	1	ee	
28	Sooty Shear	10	SW	circling ships
29	R. Phal	1	SE	
30	Sooty Shear	3	ee	
32	R. Phal	1	ee	landed on H <sub>2</sub> O



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TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
FF 1237	H. Gull Jaeger sp Sooty Shear	35±5 3 20±5	2	ee	Mostly Ad all together feeding & moving to N.W. - like over a school of fish moving that direction
40	" "	1	V	S	
41	R. Phal	3	V	SW	
44	" "	1	V	ee	
46	Phal sp.	1	V	SE	
47	" "	1	V	ee	
51	Sooty Shear	1	V	ee	
1309	R. Phal	2	V	ee	
10	" "	1	V	S	
11	Sooty Shear	2	V	S	
14	Phal sp	2	V	ee	Probability Red
sec 3	R. Phal	200+	V	ee	
16	R. Phal	200+	V	ee	
18	Sooty Shear	1	V	ee	on H <sub>2</sub> O in long thin lines
19	R. Phal	25+	V	ee	
24	" "	5	V	SW	on H <sub>2</sub> O
FF 35	H. Gull Jaeger sp Sooty Shear	20+ 5 10+	V	ee	Toward S. 15° All together feeding & moving N like flock Rabone
1415					
sec 6	BFA	6	V	ee	Shift in
32	Phal sp	2	V	ee	on H <sub>2</sub> O 1 white rump / rest dark
42	R. Phal	1	V	ee	off H <sub>2</sub> O
47	Sooty Shear	1	V	S	" "
49	" "	1	V	S	
1513	" "	1	V	S	
22	LA	1	V	E	
27	G-W Gull	1	V	ee	1st winter
1600					
15					SK. Front
47	LUR sp	1	V	ee	cc to W
in 5 x. off					
1420	Xantus muralt	2			
1430	Laysan sp	—	cc	11	R. L. Brownell
1440	Xantus muralt	1			

6 Dec '67

BFA 10

LA 1

WRSP ~~2~~ 16

Sooty Shear 2

Brn gull 1

Brn gull 1

Stenopt 1

R Phal 1

5

2

10 (5)

1

21 (-2)

3 (-2)

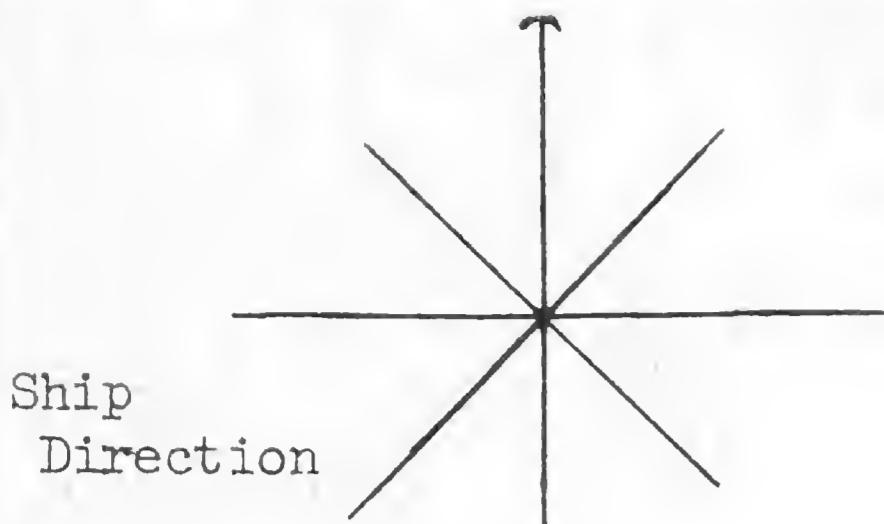
5

(5)

9 mi Sec 5

97 mi 4

3  
41



Ship  
Direction

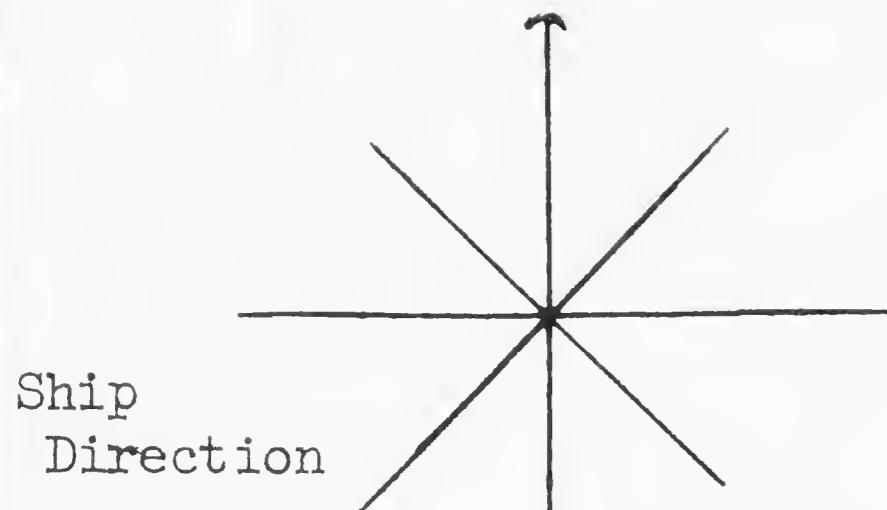
SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date 6 Dec '67  
Pg. # 1

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0705					SR begin obs.
0707	BFA	2 ✓			fallowing
0720	WRSP	1 ✓		888	
0725	Sooty Shear	1 ✓		N	
0727	WRSP	1 ✓		881	
0728	Sooty Shear	1 ✓		88	
0728	BFA	1 ✓			total of 3.
0742	"	2 ✓			" 5
0810	Laysan shear.	1 ✓		88	Hunting/following a 1.5 mile off
0905	Leach's SP	2 ✓		ee	Star board beam. Has not yet been attacked
0915	BFA Laysan Shear	10 ✓			to ship. Following
35	LWRSP	1 ✓		ee	
1035	"	1 ✓		ee	
39	"	1 ✓		ee	
42	GW Gull	1 ✓		ee	
1108	St Pet	1 ✓		ee	
10	<del>St. R. Phalarope</del>	1 ✓		ee	
22	LWRSP	1 ✓		ee	aff H <sub>2</sub> O
1135					BFA - aff 7 following 6 dark bars 1 light bar
1200	Gull	2			(Hence H-W 1st yr bills - light buffy gray)
1210	WRSP	3 ✓		888	
46	"	1 ✓		"	
51	"	7 ✓		ee	



OBSERVERS:

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN  
or

Date 6 Dec  
Pg. # 2

TIME SPECIES # DIR. BAND NO. REMARKS

1255	1325				Passing through Squall. - L. to Rain.
1412	WRSP	2 ✓	68		
1436	Pelican	2 ✓			Sooty and Chested from No 11. on No 12.
1437	WRSP.	1 ✓	828		
1617	Sooty Shear	1 ✓	SW		
24	LWRSP	2 ✓	ceo		
1644					ccto S
1706					Sunset close ab.

Sec 5

B.F.A. - 3 ✓  
FT Bld. 1 ✓  
Sooty Shear 3 ✓  
L.R.S.P. 8 ✓

H gull 7 ✓  
B-w gull 1 ✓  
Phalarope 1 ✓  
R Phal 5 ✓  
BLIC 1 ✓

7 Dec.

Sec 6

Ru P.L.C. 13 ✓

Phal op 3 ✓

W.R.S.P. 4 ✓

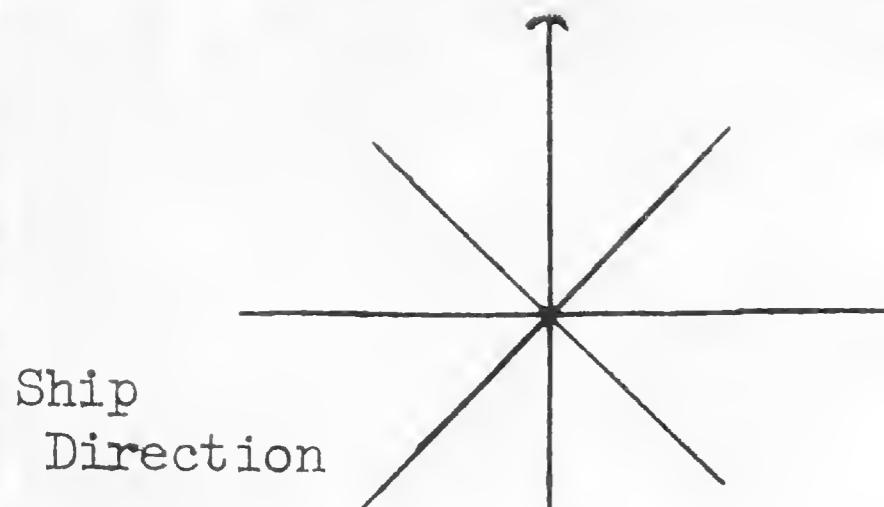
Strewn 1 ✓

Scops 4 ✓

Sooty Shear 1 ✓

Large Ad. 1

B.F.A. - 3



Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

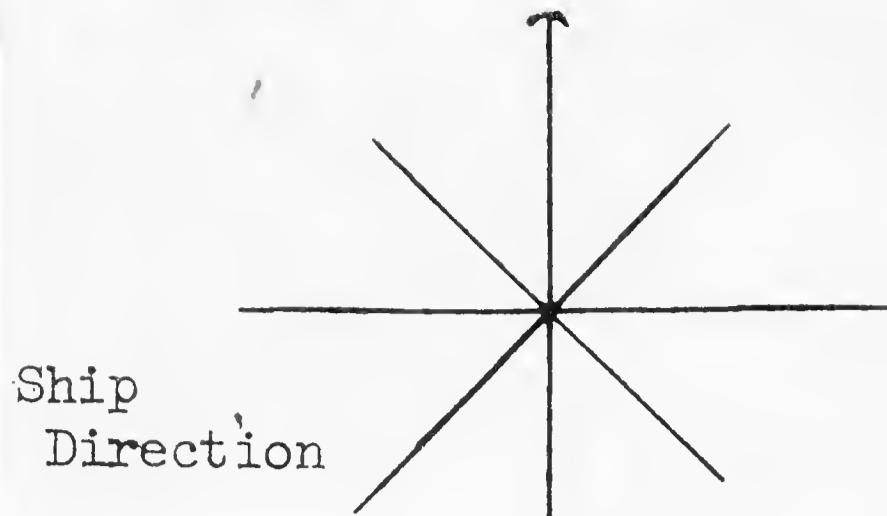
Date Dec 7, 1967  
Pg. # 1

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

0703					sunrise begins ab.
03	BFA	3 ✓	NE		Following
10	H. Gull	2 ✓	NE		1 Ad, 1st year
0805	G-W Gull	1 ✓			
10	LWRSP	2 ✓	NE		1st yr.
34	Sooty Shear	1 ✓	SE		
34	LWRSP	3 ✓	SE		
51	Phalarope sp.	1 ✓	SE		
0912	LWRSP	1 ✓	SE		satur H <sub>2</sub> O
24	BLIS	1 ✓	SE		
40	F.T. Petrel	1 ✓	S		Imm
42	R. Phal	1 ✓	SE		
43	" "	2 ✓	SE		off H <sub>2</sub> O
53	" "	2 ✓	S		
56	WRSR	2 ✓	S		
					888
1030					begin mob rolls
1130					close mob
1130	Henry Gull	5 ✓			" ONADP streets entered
37	Sooty Shear	2 ✓	S		Total 7 (1 second yr: 4 1st yr. Birds)
46	R. Phal	1 ✓	E		
57	" "	4 ✓	E		
1207	Phal. sp.	2 ✓	E		
12	LWRSP	1 ✓	SE		Squall line moving in from NW
13	R. Phal	8 ✓	E		
15					up high
1305	Scallop sp.	1	S		close during rain squalls.
1320	DUCKL. sp.	1	S		OPEN white below - dark back - long neck - S <sup>and</sup> blue shark in 5 ft near floating
1352					Blue shark in 5 ft near floating
1410	Scallop Duck sp.	3 ✓	SE		steel "met float."
1419	S.P. sp.	1 ✓	SE		just swimming. Show some wing action.
1448	WRSR	1 ✓	SE		Not so wing - head too large - neck too short.
1452	Stone Lnd	1 ✓	S		Returned again. - Scallop - specific determination not possible.
1525	Sooty Shear	1 ✓	SE		Possible, however bird alone and flying soft x H.H.
1526	WRSR	1 ✓	SE		
1527	Laysan Albatross	1 ✓	SE		Just over. Full.



OBSERVERS:

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

Date 7 Dec '67  
Pg. # 2

1532	WRSP	1	SWW			
1857						<i>Sunset close ab.</i>

Scal 8

8 Dec

B-CA 15

Fulmar 80

Sooty Tern 3

Long-bill 10

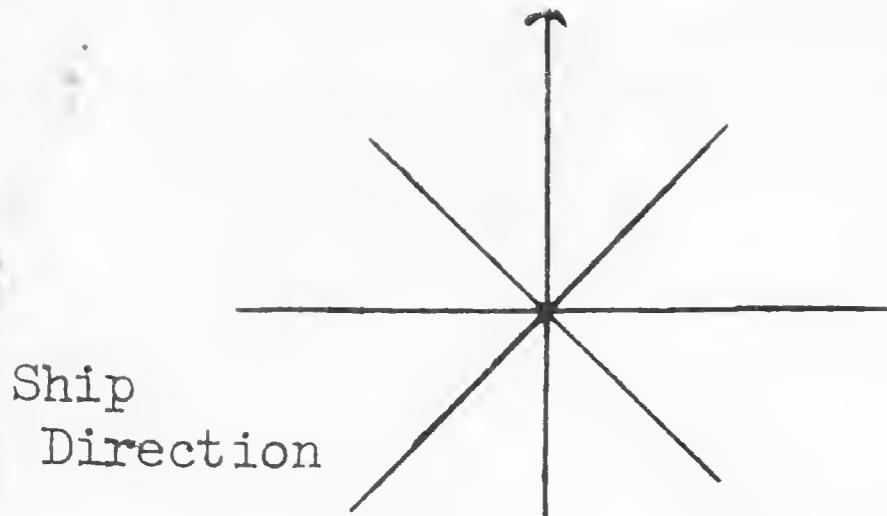
B-W gull 2

Slender - 2

WCSR 5

SP 1

BL K. H. water 1



Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

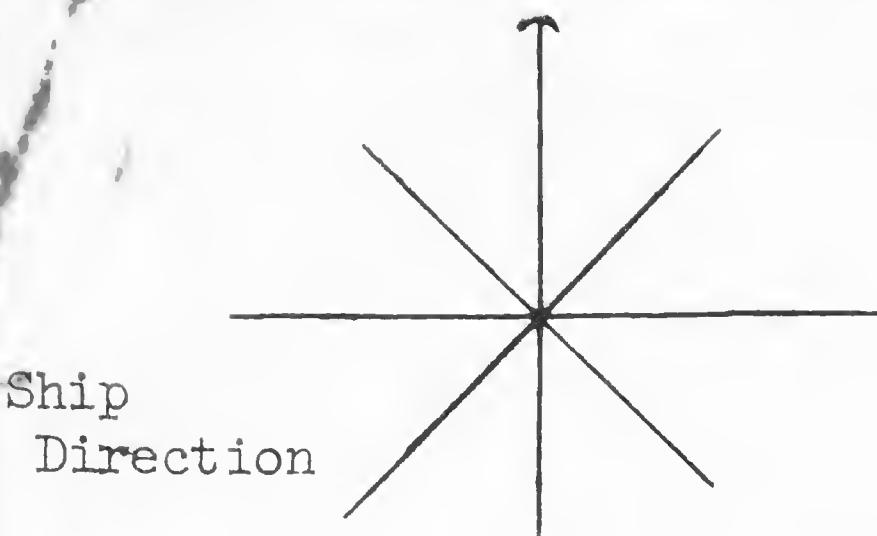
OBSERVERS:

Date 8 Dec  
Pg. # 2

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

1330	Fulmar	2	NE	DK
1330	W. Gull	1	SE	
1350	C. Gull	1	SE	
1410	"	1	SE	
26	"	1	SE	Following 51
1435	S. P. sp	1	EE	
1437	G-w Gull	2	EE	
43	BFA	14	EE	Following 1 <sup>st</sup> winter
43	Fulmar	15	EE	Following 1 <sup>st</sup> winter
1507	BFA	15	EE	Following 1 <sup>st</sup> winter
17	Sooty Shear	15	SE	Following 1 <sup>st</sup> winter
30	Fulmar	1	EE	
37	"	1	EE	Following 1 <sup>st</sup> winter
1610	H Gull	10	EE	
0-w Gull		1	EE	
BFA		13	EE	1 Ad. & 1 Immature
1625	BFA	15	EE	15 immatures
1645	W. Gull	1	SE	Following 1 <sup>st</sup> winter - male
1705	Fulmar	1	SE	DK
1715				



Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

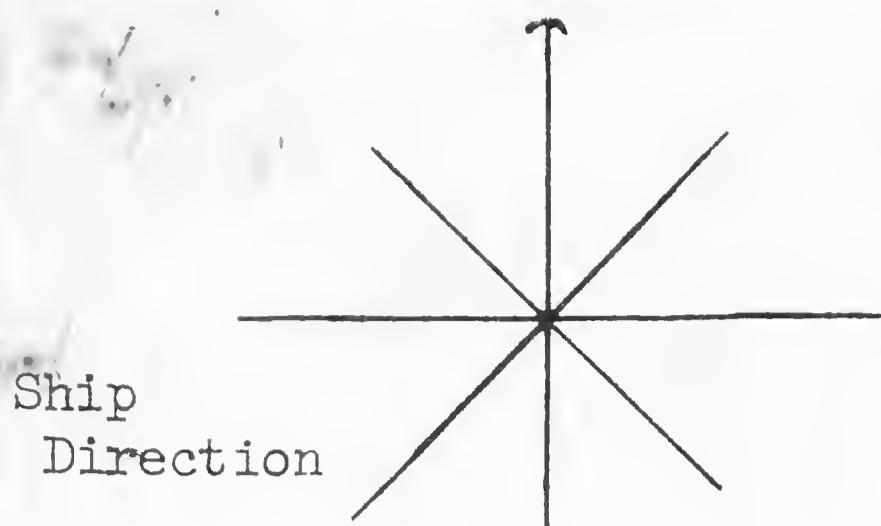
Popper to  
male tell  
following  
open

Date 8 Dec  
Pg. # 1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0650					SE - bag in 06.
0840	BFA	2			following
0905	Herring gull	1			15* gr. (following) (ba)
1000	Fulmar	1			DK.
1010	BFA	5			
1010	Herring gull	4			See 15* gr.; 1000 (following) (ba)
1012	B-W gull	1			First gr. (ba)
1014	Sooty shear	1	SE		
1020	BFA	10			Dwarf gull
	Herring gull	8-10			
	Herring gull	1			
	Slim/pet	2			Medium-sized macrourid that no. with all 772
1105	W KSP	1			
1122	Gulls	1			16
1230	Sooty Shear	1			
1230	BFA	12	SW		no gull



Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

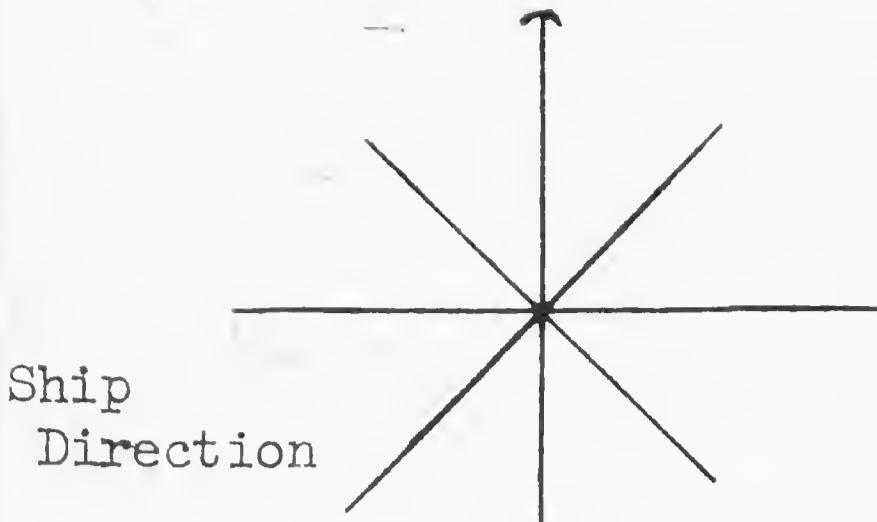
OBSERVERS:

Date 9 Dec 167  
Pg. # 1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

700	BFA	2 ✓	NE	Following	BFA - 9
722	Gull sp	1 ✓	N		LA - 1
35	BFA	3 ✓	NE		Fulmar - 4 WRSPd
40	"	4 ✓	NE	Full	Sooty Shear - 1
49	Fulmar	5 ✓	NE	Following ship	Nphel - 1
76	BFA	6 ✓	NE		Puffin - 1
0500					RTTB - 1
05	N Phal	1 ✓	NE	Following ship down	
37	LA	1 ✓	NE		
56	Sooty Shear	1 ✓	NE	Following ship	
1040	BFA	7 ✓	NE		
1155	BFA	8 ✓	NE	All dark.	
1225	BFA	9 ✓	NE		
1320	Fulmar	1 ✓	NE	Range Cadence 411 d/s Banded left foot	
1320	RTTB	1 ✓	NE	11 Dg	
1400	Fulmar	1 ✓	NE	Ad	
1525	WRSP	1 ✓	NE	Lk	
1714	BFA	5 ✓	NE		
1715	LA	7 ✓	NE	sunset	



Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date  
Pg. #

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

0747	Hgull	1	SE	
0835				Herring Gull - 1.d. based on behavior jumps out of the Hgull - Began several times moving to the west while at it
0900	BFA	1		
1130	Fulmar	1	NE	Flocking
1155	RBTB	1	NE	DLG
1210			240°	SPOTS OF BLAZE ON DORSAL SURFACE / THIGHS & TAIL white BILL COLOR NOT NOTED
1309	Herring Gull	1	NE	2 OR MORE whalers blowing on surface Spinn? 170°
1320	" "	2	NE	AD.
1323			NE	ADG.
1328	4. Gull sp.	3	NE	Flying Fish
41	Fulmar	1	NE	1st year 2nd yr.
1425	H-gull	3	NE	DLG
1532	BFA	2	NE	1st winter (1) 2nd winter (2) Noddy
1533	Herring Gull			over & white
1540	BFA	3	NE	3-4th year
1553	Herring Gull			1-Ad - at 1554 totalled 6 H Gulls & entered ADP sheets as following, flagged abundance.
1645	BFA	4	NE	
47	Ponteder	1	NE	Ad H. Phoe
55	BFA	5	NE	
56				

Entered on APP and  
in full all or following

Date 2 Dec.

Ship Tioga City (1158) <sup>LST</sup> Cruise No. 1

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time \_\_\_\_\_

Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Sunset: Time 1645

Position: Lat. 33-26, Long. 118-06

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 62

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.	<u>1645</u>			
3.	<u>1135</u>			
	<u>5-10</u>			
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
off Pt. Loma						
1000	<u>32-43</u>	<u>117-30</u>	<u>32-54</u>	<u>117-11</u>		
1100			<u>46</u>	<u>20</u>		
1200	<u>33-07</u>	<u>117-43</u>	<u>33-54</u>	<u>117-30</u>		
1300			<u>00</u>	<u>16</u>		
1400	<u>33-20</u>	<u>117-58</u>	<u>33-07</u>	<u>117-43</u>		
1500			<u>13</u>	<u>50</u>		
1600	<u>33-26</u>	<u>118-06</u>	<u>33-20</u>	<u>117-38</u>		
1700			<u>13-24</u>	<u>116-05</u>		
1800						
1900						
2000						
2100						
2200	<u>33-46</u>	<u>118-41</u>				
2300						
2400						

Date 3 DecShip Tioga County (LST 1158)Cruise No. 1

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time 0651Position: Lat. 34-30, Long. 120-55Sunset: Time 1702Position: Lat. 35-00, Long. 123-00

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 11055 mi. in grid

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	<u>0651</u>	<u>to 220</u>	<u>34-30</u>	<u>120-55</u>	<u>1.8 hr at 4.7</u>
2.			<u>34-33</u>	<u>120-53</u>	
3.			<u>34-37</u>	<u>120-50</u>	
4.	<u>1702</u>		<u>35-00</u>	<u>123-00</u>	
5.	<u>1135</u>		<u>35-01</u>	<u>123-01</u>	

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400	<u>34-18</u>	<u>120-26</u>				
0500	<u>34-23</u>	<u>120-21</u>				
0600	<u>34-27</u>	<u>120-15</u>				
0700	<u>34-30</u>	<u>120-08</u>				
0800	<u>34-38</u>	<u>120-02</u>				
0900	<u>34-41</u>	<u>120-00</u>				
1000	<u>34-45</u>	<u>120-05</u>				
1100	<u>34-47</u>	<u>120-08</u>				
1200	<u>35-00</u>	<u>121-59</u>				
1300		<u>122-03</u>				
1400		<u>122-07</u>				
1500						
1600	<u>35-01</u>	<u>122-56</u>				
1700		<u>123-03</u>				
1800						
1900						
2000	<u>35-01</u>	<u>123-39</u>				
2100						
2200	<u>35-01</u>	<u>124-03</u>				
2300						
2400						

Date 4 Dec '67Ship Tioga City (1158)Cruise No. 11648  
35

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

1743  
23Sunrise: Time 0716Position: Lat. 35-02, Long. 125-55Sunset: Time 1723Position: Lat. 34-09, Long. 125-4533  
51  
37  
121

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 117

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

30  
56  
37  
117

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1. C/C	from 270-180	$085^{\circ}45'N$	at Pt Birch
2. C/C	180-090 $\vartheta$	1400	425 $\vartheta$ Cedar
3.			
4.			
5.			

all in route

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400	<u>35-02</u>	<u>125-14</u>				
0500						
0600	<u>35-02</u>	<u>125-39</u>				
0700		<u>52</u>				
0800	<u>35-02</u>	<u>126-07</u>				
0900	<u>35-22</u>	<u>21</u>				
1000	<u>34-55</u>	<u>126-35</u>				
1100	<u>45</u>	<u>33</u>				
1200	<u>34-34</u>	<u>126-31</u>				
1300		<u>31</u>				
1400	<u>34-11</u>	<u>126-31</u>				
1500		<u>17</u>				
1600	<u>34-10</u>	<u>126-04</u>				
1700		<u>50</u>				
1800	<u>34-08</u>	<u>125-55</u>				
1900						
2000	<u>34-09</u>	<u>120-00</u>				
2100						
2200						
2300						
2400	<u>34-10</u>	<u>124-08</u>				

LST

Date 5 DecShip T.C. (1158)Cruise No. 1

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time 0647Position: Lat. 34-04, Long. 122-32Sunset: Time 1657Position: Lat. 23-18, Long. 121-30

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 130 75 mi in 3Miles travelled from sunset to 2400 hours = 30 45 in 6

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1. 1614 - 00	From 180 to 270 at 5 deg		
2.	1200 00 From 000 to 180 on 1 deg west.		
3.			
4. 2000 00 270 & 260			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400	<u>34-04</u>	<u>123-09</u>				
0500						
0600	<u>34-04</u>	<u>122-40</u>				
0700	<u>34-04</u>	<u>122-29</u>				
0800	<u>34-04</u>	<u>122-17</u>				
0900		<u>122-04</u>				
1000	<u>34-04</u>	<u>121-50</u>				
1100	<u>-05</u>	<u>37</u>				
1200	<u>34-05</u>	<u>121-25</u>				
1300						
1400						
1500						
1600		<u>25</u>				
1700	<u>23-18</u>					
1800	<u>23-18</u>	<u>121-30</u>				
1900						
2000						
2100						
2200						
2300						
2400						

Date 6 Dec Ship Tioga City (L5<sup>+</sup> 1158) Cruise No. 1  
 Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0703 Position: Lat. 32-51', Long. 124-37'

Sunset: Time 1719 Position: Lat. 32-47', Long. 126-30'

Miles travelled from 0000 hours to sunrise =

Miles travelled from sunrise to sunset = 106 9 mi in middle 5

Miles travelled from sunset to 2400 hours = 97 mi = 4

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	<u>0745</u>	<u>C/C</u>	<u>26° - 27°</u>	
2.	<u>0322</u>	<u>C/C</u>	<u>27° - 26°</u>	
3.	<u>0615</u>	<u>C/C</u>	<u>26° - 27°</u>	
4.	<u>1645</u>	<u>C/C</u>	<u>27° - 180°</u>	<u>85°</u> <u>12°</u> <u>91°</u>
5.	<u>1845</u>	<u>C/C</u>	<u>180° - 090°</u>	<u>9°</u> <u>10°</u> <u>13°</u> <u>90°</u> <u>7°</u> <u>12°</u>

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300	<u>33-00</u>	<u>123-10</u>				
0400						
0500						
0600						
0700	<u>51</u>	<u>37</u>				
0800	<u>32-51</u>	<u>124-48</u>				
0900	<u>51</u>	<u>59</u>				
1000	<u>52</u>	<u>25-10</u>				
1100	<u>53</u>	<u>21</u>				
1200	<u>32-52</u>	<u>125-31</u>				
1300	<u>52</u>	<u>25-43</u>				
1400	<u>53</u>	<u>25-56</u>				
1500	<u>52</u>	<u>26-01</u>				
1600	<u>32-52</u>	<u>126-21</u>				
1700						
1800						
1900						
2000	<u>32-28</u>	<u>126-13</u>				
2100						
2200						
2300						
2400						

Date 7 Dec Ship Tioga City (135) Cruise No. 1  
 Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0703 Position: Lat. 32-22', Long. 123-40'  $090^{\circ} 12'$   
 Sunset: Time 1700 Position: Lat. 32-29', Long. 121-32'  $084^{\circ} 12'$

Miles travelled from 0000 hours to sunrise = 0703-1140-54  
 Miles travelled from sunrise to sunset = 124  
 Miles travelled from sunset to 2400 hours = 1140-1700-70

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	<u>1915</u>	<u>090-180</u>	<u>32-19'</u>	<u>121-00'</u>
2.	<u>2300</u>	<u>180-270</u>	<u>32-27'</u>	<u>121-00'</u>
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600						
0700	<u>22</u>	<u>40</u>				
0800	<u>32-23</u>	<u>123-27</u>				
0900	<u>23</u>	<u>14</u>				
1000	<u>24</u>	<u>02</u>				
1100	<u>24</u>	<u>49</u>				
1200	<u>32-24</u>	<u>122-37</u>				
1300	<u>22</u>	<u>24</u>				
1400	<u>21</u>	<u>11</u>				
1500	<u>20</u>	<u>21-58</u>				
1600	<u>32-19</u>	<u>121-46</u>				
1700	<u>18</u>					
1800						
1900						
2000	<u>30-10</u>	<u>121-02</u>				
2100						
2200						
2300						
2400						

Date 8 DecShip Tioga City (LS+)Cruise No. 1

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time 0656Position: Lat. 31° 23', Long. 122-40'

180/02

Sunset: Time 1708Position: Lat. 31° 21', Long. 124-54' W

25

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 97

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.				
4.				
5.				

## Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800	31-30	122-51				
0900	29	123				
1000	28	123				
1100	27	123				
1200	31-26	123-36				
1300	30	123				
1400	29	123				
1500	28	123				
1600	27	123				
1700	26	123				
1800						
1900						
2000	31-21	124-54				
2100						
2200						
2300						
2400						

Date 9/26 Ship Tioga City (1158) LST (1158) Cruise No. 1

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0712 Position: Lat. 30-04' Long. 126-31'  
Sunset: Time 1709 Position: Lat. 30-47' Long. 124-41'

Miles travelled from 0000 hours to sunrise = 0712 - 1615 - 93

Miles travelled from sunrise to sunset = 101 1615 - 1709 - 8

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	at 0800			
2.				
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400						
0500						
0600						
0700	31-04	126-31				
0800	30-53	126-29				
0900	31	18				
1000	30	06				
1100	49	55				
1200	30-47	125-44				
1300		29				
1400		14				
1500	30-47	124 59.				
1600						
1700						
1800	30-06	124-30				
1900						
2000	30-09	124-03				
2100						
2200						
2300						
2400						

958b-SI-MNH  
Rev. 9/28/66

1315 1478 - 30-48 125-28

12-

5R ~ 122-39'

122-50 ~ 076° - 5"

Date 10 DecShip Tioga City (LST 7158)Cruise No. 1

Organization \_\_\_\_\_

Recorder \_\_\_\_\_

Sunrise: Time 0654Position: Lat. 30-52 Long. 121-31Sunset: Time 1656Position: Lat. 31-30, Long. 119-36Miles travelled from 0000 hours to sunrise = 8Miles travelled from sunrise to sunset = 10927 milesMiles travelled from sunset to 2400 hours = 117

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

1.

C/C from 090 to 061°af 0910 at Pt Oak.

2.

3.

4.

5.

0910  
0654  
2.16

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600	<u>30-52</u>	<u>121-44</u>				
0700		<u>121-30</u>				
0800	<u>31-53</u>	<u>121-16</u>				
0900	<u>31-53</u>	<u>121-00</u>				
1000		<u>49</u>				
1100	<u>59</u>	<u>37</u>				
1200	<u>31-04</u>	<u>120-26</u>				
1300	<u>09</u>	<u>16</u>				
1400	<u>31-14</u>	<u>120-05</u>				
1500	<u>19</u>	<u>55</u>				
1600	<u>30-24</u>	<u>119-45</u>				
1700	<u>29</u>					
1800						
1900						
2000						
2100						
2200						
2300						
2400						

31 in.

PRELIMINARY REPORT

EASTERN AREA CRUISE #32

SAN DIEGO - PT. ASH - SAN DIEGO

2 - 11 December 1967

EASTERN GRID SURVEY #18

3-10 December, 1967

Prepared

by

Robert L. DeLong (Grid)

T.J. Lewis (Nongrid)

Preliminary Report

EAC #32  
2 - 11 December 1967

EGS #18  
3 - 10 December 1967

Support Ship: USS Tioga County (LST 1158)

Cruise Itinerary: 2 December (0800) - depart San Diego  
3 December (1135) - Enter Grid at Pt. Ash  
10 December (0910) - depart Grid at Pt. Ash  
11 December (0900) - Arrive San Diego.

Personnel: R. L. DeLong (BIC)  
T.J. Lewis  
R.L. Brownell

Methods:

Diurnal observations were held from the bow, the forward gun mounts, and the lee wings of the bridge as weather conditions dictated. No nocturnal observations were conducted. The skiff was used for 2 hours on 7 December; one storm petrel was collected. No bathythermograph casts were made due to lack of equipment.

Cruise track & conditions:

The cruise track (Figure 1) was altered from the normal on two occasions due to heavy weather. The LST class ship is not a satisfactory observation platform in the survey area. The ship rolls severely while running in the trough; and pounds unceasingly while running into the sea. During this survey with prevailing seas from the west severe pounding was encountered on all westerly legs. As the ship pounded on a swell and entered a trough it "shuddered" with 60-90 vibrations per minute. The constant abnormal ship movement did not allow observers to use glasses for scanning, thus the numbers of birds observed were certainly fewer than normal. This bias may approach a 25 percent reduction in observability from the normal conditions.

Weather during the survey was affected by a number of various sized, fast moving fronts. Moderate to heavy seas prevailed through all but two days of the survey. Sea temperatures (recorded as sea water injection temperatures in the engine room) varied only two degrees in the survey area. These readings (if accurate) indicate a very flat temperature field throughout the Grid, resulting from seasonal cooling at the surface and consequent overturning and mixing in the upper layers. The coding and mixing may have been accelerated this month because of the several cold fronts passing through the area. The N.E. Pacific has been averaging 3-5° F. warmer than normal during this past summer and early fall. Rapid cooling would tend to bring temperatures back toward seasonal normal.

The distribution of albatross during this survey was not random. On 4 December 24 birds were recorded in section R in the northwest corner of the grid. This is the highest number of birds yet recorded on one day of observation. This also is the first time that the highest concentration of albatross has occurred in the northwest section.

It is to be noted that the two low counts in sectors S (north central) and Z (southeast) are in areas where little diurnal coverage was achieved. Since birds accumulate during the day, with highest numbers when garbage is dumped, a small linear mile coverage in an area in the morning hours will normally result in low numbers of albatross recorded.

Of the 39 birds examined for rump color, 34 (87 percent) were immatures (dark-rumped). Small numbers of white-rumped birds recorded indicate that the adult birds have returned to the breeding islands.

Fulmar (Fulmarus glacialis) Number observed: 24

0	1	11
0	0	0
4	8	0

All were dark phase birds. The presence of birds in the southern portion of the area was not expected. In January and February sightings in the southern section accounted for less than one percent of the observations.

On tenuous evidence I suggest that when these birds arrive on the wintering grounds they go through a "shuffle period", one of wandering in search of a relatively constant food supply. Thus, arriving birds would be well scattered until they finally settle in "winter ranges" (this may also hold for immature Black-footed Albatross during early winter). During this survey, however, their distribution was not random.

Sooty Shearwater (Puffinus griseus) Number observed: 79

2	6	57
1	5	4
1	3	0

Seventy two percent of the birds were recorded in the northeast corner of the grid. The birds were evenly distributed in other areas of the grid. No directional movement was recorded indicating that the "secondary migration" recorded on EGS 17 has terminated or reached a pause. Sooties were recorded in a feeding flock also containing Herring Gulls and Jaegers.

Leach's Storm Petrel (Oceanodroma leucorhoa) Number observed: 81

7	3	30
19	10	6
1	5	0

A concentration (37 percent of observations) was recorded in the northeast corner of the grid. Observing conditions were very poor for sighting storm petrels due to the heavy seas and ship's characteristics (discussed above). Thus the quantitative observations on this species are not indicative of actual numbers.

Fork-tailed Storm Petrel (Oceanodroma furcata) Number observed: 2

Single birds observed in sections R and V.

Red-tailed Tropicbird (Phaethon rubricauda) Number observed: 1

One adult bird flew about the ship for some minutes on 9 December at approximately  $30^{\circ} 48'N$  -  $125^{\circ} 29'W$  in section X of the grid.

Scaup sp. (Aythaya sp.) Number observed: 4

One lone bird and a group of three flew near the ship on 7 December at approximately  $32^{\circ} 21'N$  -  $122^{\circ} 12'W$  in section W.

Phalaropes Number observed: 328

8	0	293
1	6	19
1	0	0

The concentration (90 percent) was recorded in the northeast sector. Both Northern and Red Phalaropes were identified and recorded on the basis of mantle color. I am not sure that we were correct in those identifications of Northern Phalaropes. Thus I prefer to lump them as Phalaropes. Attempts will be made on EGS 19 to collect heavily in this area to resolve this species composition problem.

Jaeger sp. (Stercorarius sp) Number observed: 11

All were recorded in the northeast corner of the grid. One dark phase adult Pomarine Jaeger was identified. Jaegers were associated with one feeding flock containing Herring Gulls and Sooty Shearwaters; however, no parasitism was observed.

Glaucous-winged Gull (Larus glaucescens) Number observed: 5

All were first-winter immatures. These can be confused with Herring Gulls of the same age, but these observations are felt to be reliable.

Herring Gull (Larus argentatus) Number Observed: 114

The concentration recorded in the northeast corner is notable although some birds followed the ship as it entered the grid. The density of birds outside the grid near Point Ash was very high.

Black-legged Kittiwake Number observed: 4

This regular winter resident is still in low numbers.

Rhinoceros Auklet (Cerorhinca monocerata) Number observed: 3

Three birds were recorded in section T (the northeast section).

Xantus Murrelet (Endomychura hypoleuca) Number Observed: 3

None were seen from the ship, but on 5 December while in the skiff three birds were seen, all in section W.

## Synopsis of Eastern Grid Survey #18

During 732 miles of diurnal observations (68.6 hours) 73 albatross plus 676 birds of other species were recorded. Total linear density (birds per linear mile) was 1.02 with albatross, and 0.924 without albatross (see Black-footed Albatross species account). The density with albatross should be used if this parameter is to be of any value. Four sightings totaling 18 marine mammals were recorded in the Grid.

### Highlights:

- 1) Increasing numbers of immature Black-footed Albatross in Grid area.
- 2) Near random dispersion of winter resident; i.e., not yet showing limited distribution as was first noted in January of this year.
- 3) Presence of non-migrating Sooty Shearwaters.
- 4) North section continues to show highest density.

Two feeding flocks, one consisting of 20<sup>+</sup> Leach Petrels; the other of 20<sup>+</sup> Herring Gulls, 5 Jaegers and 10<sup>+</sup> Sooty Shearwaters, were recorded in the northeast section of the Grid.

### SPECIES ACCOUNTS

#### Black-footed Albatross

Maximum counts:	December	3: 6
	4:	24
	5:	6
	6:	10
	7:	3
	8:	15
	9:	9
	10: (1)	
	Total	74
(Mean)	Average	9.2

Distribution by sector		
24	6	11
10	8	9
9	15	1

Albatross are omitted from the sectional breakdown analysis in Tables 2 and 3 because of confusion generated by birds following the ship from one sector to the next, and thus being counted twice.

The distribution of albatross during the survey was not random. - - - - - etc. - - - - - - - - -

TABLE 1. Summary of Diurnal Observation EGS 18, 3-10 December 1967.

	#Miles	# Hours	# Birds	#Species	Linear Density
3 December	55	5.5	111	12	2.018
4 December	117	10.1	45	8	0.384
5 December	105	10.2	436	13	4.152
6 December	106	10.3	41	7	0.386
7 December	124	10.0	57	10	0.359
8 December	97	10.2	47	7	0.484
9 December	101	10.0	23	8	0.227
10 December	27	2.3	2	2	0.074
Total	732	68.6	762	19*	1.040

\* Includes 74 Black-footed Albatross and 688 birds of other species.

TABLE 2. Sectional Abundance/Density, Eastern Grid Survey 18, 3-10 December 1967.

	(1) R	(2) S	(3) T	(4) U	(5) V	(6) W	(7) X	(8) Y	(9) Z	Total
Loon sp.			3/.027							3/.004
Fulmar		1/.045	11/.101							24/.033
Sooty Shearwater	2/.017	6/.272	57/.527	1/.010	5/.079	4/.04	1/.01	8/.076	3/.028	79/.108
Cook's Petrel			2/.018							2/.003
Shearwater/Petrel			4/.037					2/.019	6/.008	
"Leach's-type" Petrel	7/.060	3/.136	30/.277	19/.195	10/.158	6/.06	1/.01	5/.048		81/.111
Fork-tailed Storm Petrel	1/.008				1/.016					2/.003
Storm Petrel sp.			2/.018			1/.01		1/.009		4/.005
Red-tailed Tropicbird							1/.01			1/.001
Scaup						4/.04				4/.005
Phalarope sp.	8/.068		293/2.712	1/.010	6/.095	19/.119	1/.011			328/.448
Shorebird			1/.009							1/.001
Jaeger sp.			11/.101							11/.015
Glaucous-winged Gull	1/.008			1/.010	1/.016			2/.019		5/.007
Herring Gull	1/.008	9/.409	85/.787	1/.010	7/.111			10/.095	1/.037	114/.156
Gull sp.			2/.018		1/.016		1/.011			1/.001
Black-legged Kittiwake								1/.009		4/.005
Xantus Murrelet						3/.30				3/.004
Rhinoceros Auklet			3/.027							3/.004
Totals	20/.170	19/.863	504/4.666	23/.237	31/.492	37/.370	9/.097	32/.305	1/.037	676/.924
Miles	117	22	108	97	63	100	93	105	27	732
Species	6	4	11	5	7	5	6	7	1	

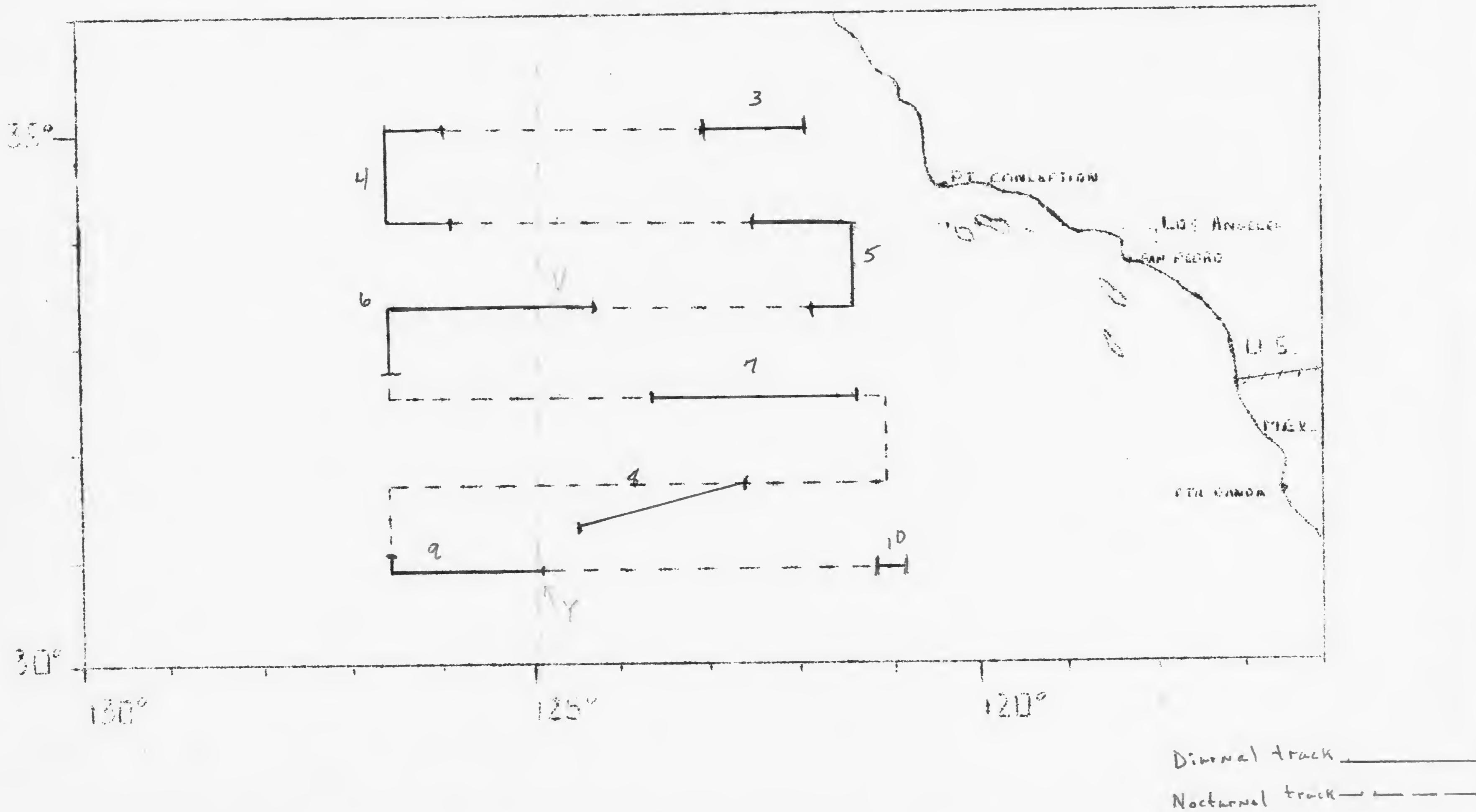
TABLE 3. North-South &amp; East -West abundance/density, EGS 18, 3-10 December 1967.

	N	C	S	E	C	W
Loon Sp.	3/.012			3/.013		
Fulmar	12/.049		12/.053	11/.047	9/.047	4/.013
Sooty Shearwater	65/.263	10/.038	4/.017	61/.260	14/.073	4/.013
Cook's Petrel	2/.008			2/.009		
Shearwater/Petrel	4/.016		2/.008	4/.017	2/.011	
Storm Petrel	43/.174	37/.142	7/.031	39/.166	20/.105	28/.091
Red-tailed Tropicbird			1/.004			1/.003
Scaup		4/.015		4/.017		
Phalarope sp.	301/1.22	26/.100	1/.004	312/1.33	6/.031	10/.032
Shorebird sp.	1/.004			1/.004		
Jaeger	11/.045			11/.042		
Glaucous-winged Gull	1/.004	2/.008	2/.008		3/.015	2/.006
Herring Gull	95/.384	8/.031	11/.048	86/.366	26/.136	2/.006
Black-legged Kittiwake	2/.008	1/.004	1/.004	2/.009	2/.011	1/.003
Xantus Murrelet		3/.012		3/.013		
Rhinoceros Auklet	3/.012	.		3/.013		
Total	543/2.19	91/.350	42/.186	542/2.31	82/.432	52/.169
Miles	247	260	225	235	190	307

Figure 1.

Cruise Track, E 9 S 18, 3-10 December 1967

## EASTERN PACIFIC OCEAN



### Non-Grid Observations

Observations were held on December 2 & 3 when proceeding to Pt. Ash from San Diego, and on December 10 when returning to San Diego from Pt. Oak. Observation conditions were fair to good on December 2 & 3 and poor on December 10.

On leaving Pt. Loma December 2 the ship was almost continually being passed by long lines of Brown Pelicans interspersed with a few cormorants. Later in the day many of these birds were seen feeding in company with Heerman Gulls in rather large flocks. During the few hours preceding arrival at Pt. Ash, several large flocks of Phalaropes were observed. These two outstanding features predominated the coastal trip north. The inbound leg on the 10th of December was rather dull except for the occurrence of the Red-billed Tropicbird.

TABLE 4. Summary of Non-Grid Observations - EAC 32.

	<u>Dec. 2</u>	<u>Dec. 3</u>	<u>Dec. 10</u>
Black-footed Albatross	-	2	5
Sooty Shearwater		8	
Pink-footed/New Zealand Shearwater		2	
Fulmar	1	4	2
Red-billed Tropicbird			1
Brown Pelican	627+		
Pelagic Cormorant	4		
Cormorant sp	58	1	
Red Phalarope		74	
Northern Phalarope		316	
Phalarope sp.		83	
California Gull	3	1	
Herring Gull		7	7
California/Herring Gull		50	
Western Gull	201+50		
Heermann's Gull	118+25		
Bonaparte's Gull	16		
Sabine's Gull	1		
Black-legged Kittiwake	1	4	
Gull sp	74		
Pomarine Jaeger	4	2	1
Parasitic Jaeger	1		
Jaeger sp	2		
Large Tern	2		
Loon sp	7		
Eared Grebe		2	
Common Murre	3		
Rhinoceros Auklet	1		
Small Alcid	1		
Total Birds	1,125	556	16
Miles	62	55	82
Hours			
Grand Total		1,697 birds	

Marine Mammals EAC 32 - December 2

Few mammals were recorded in the Grid. The low numbers recorded are thought to be due in part to the heavy sea and poor observing conditions.

1043 - A single Zalophus californianus was observed porpoising along with the ship.

1254 - Between 4 and 6 Lagenorhynchus obliquidens of two subgroups were observed in a stationary position near the surface (feeding?). When the ship approached they crossed the port bow swimming to the east. All the dolphins were swimming at a much slower rate than that usually observed for this species. After surfacing they dropped to only a few feet below the surface before returning again to the surface.

1320 - One Zalophus was noted floating at the surface. When the ship approached the sea lion swam off to the east.

1358 - Globicephala scammoni ( $40 \pm 10$ ) in 3 or 4 subgroups were noted to be in a semi stationary position on the surface. This schooling was similar to that called loafing group (Norris, 1958), except that dives of ca. 30-45 seconds were undertaken. They may have been feeding. Ages of the Pilot Whales were mixed. Large adult males, many medium-sized whales (300-400 cm), and calves or yearlings were noted.

1402 - Another Zalophus was noted porpoising.

1440 - A single Zalophus was floating near a small patch of Neocystis.

1610 - About  $75 \pm 15$  Globicephala in 4 or 5 subgroups, all seeming to be of medium size, were noted moving in a broad line south. This type of schooling is called traveling or hunting (Norris and Prescott, 1961).

No birds were noted with any of the above marine mammals today.

December 3 (Non-Grid)

0730 - About  $20 \pm 5$  Dall Porpoises were seen but did not come to ship. I.D. was based on speed and surfacing pattern (pushing much water ahead, etc.).

0735 - About  $15 \pm 5$  Dall Porpoise pushing a path of 6 to 8 feet of white water upon surfacing.

0750 - One Eumetopias jubata adult male (large) positioned with head out of water (nose-up) - Phocid - like behavior.

December 3 (Grid)

1233 Sector T - One Sperm Whale ca. 40 feet.

1456 Sector T - Fifteen Dall Porpoises approached within 200 meters of ship. Same fast water-pushing behavior upon surfacing.

December 5

0946 - One Killer Whale 14 to 18 ft. Dorsal ca. 2-1/2 ft. high. Saddle aft

December 5 Grid

0946 - (cont'd)

of dorsal showed well. Blows not well defined - only small bulbous spray.

December 10

0835 Sector Z - One Humpback Whale. I.D. based on behavior, jumping out of water 2 times.

References

Norris, Kenneth S. 1958. The big one got away. *Pacific Discovery* 11(5):3-9.

Norris, Kenneth S., and John H. Prescott. 1961. Observations on Pacific Cetaceans of Californian and Mexican Waters. *Univ. Calif. Pub. Zool.* 63(4):291-402.

TABLE II  
SYNOPTIC OBSERVATIONS

021600 16 03 1000 U

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE Barometer Corrected (Mb)	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD							
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Langitude (Degrees and tenths)		Total Cloud Amt. (Coded)	Direction (True) (00-36)		Present (00-99)	Past (0-9)			CLOUDS							Indicator	Amount (Eights)	Type	Height				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	Y	Q	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>	
1600	SHIP	1	1	333	179	00	0	31	12	98	02	0	159	170	0	90	0	230	00	8	0	0	50				
2200	SHIP	1	1	339	191	06	0	30	15	99	02	0	159	150	0	0	90	0	644	00	8	0	0	00			
0400	SHIP	1	1	343	204	12	0	28	20	99	02	0	156	140	0	0	90	0	744	00	8	0	0	00			
1000	SHIP	1	1	348	216	18	8	14	21	99	61	1	159	157	4	4	71	64007	8	5	7	15					

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE						DO NOT TRANSMIT						
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)				
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>				
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e							
0	53 13	1	31 21	1	60	60					2				ICE									62 62			
0	60 09	1	30 21	1	60	60					2				ICE									62			
0	57 11	1	28 21	1	60	60					2				ICE									62			
0	66 12	1	14 21	1	30	67					2				ICE									62			

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

2)

TABLE II  
SYNOPTIC OBSERVATIONS

031600 U TO 041800 U DEC 1967

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY			SIGNIFICANT CLOUD					
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)		Direction (True) (00-36)	Speed (True) (Knats)		Present (00-99)	Post (0-9)			Type of C <sub>L</sub> (0-9)	Height of Low Cloud (Mb and tenths)	Type of C <sub>M</sub> (0-9)	Height of Low Cloud (Mb and tenths)	Type of C <sub>H</sub> (0-9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>	
1600	SHIP	2	1	350	228	00	7	23	20	99	25	8	115	15	6	4	4	1	1	64	6	10	8	6	7	13	
	SHIP	2	1	350	241	06	0	33	13	99	02	0	125	15	0	0	0	0	0	0	0	64	400	8	0	0	99
	SHIP	2	1	350	252	12	0	27	12	99	02	0	125	15	0	0	9	0	0	0	64	400	8	0	0	99	
	SHIP	2	1	350	265	18	5	02	21	99	01	2	139	17	9	2	6	6	1	4	4	400	8	5	8	45	

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE				DO NOT TRANSMIT								
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48				A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub>	E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e				Celsius	Celsius	Celsius
0	54	14	1	23	22	1	28	57	2							ICE										58	60
0	53	14	1	11	11	1	11	11	2							ICE										60	
0	53	14	1	27	21	1	31	45	2							ICE										62	
0	51	16	1	25	21	1	30	56	2							ICE										62	

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

TABLE II  
SYNOPTIC OBSERVATIONS

041600 4

to

051800

3)

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD					
		Oc- ton (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud (0-9)	Type of C <sub>L</sub> (0-9)	Height of Low Cloud (0-9)	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	31	342	262	00	4	25	18	99	03	146	22	2	2465	24465	8	33	15									
SHIP	31	341	346	06	0	25	17	98	020	159	170	0	0/0024707	8	0	11										
SHIP	31	342	232	12	6	27	16	97	502	180	156	651	124109	8	67	20										
SHIP	31	341	217	18	2	35	20	98	010	217	242	16092	24217	8	28	45										

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE						DO NOT TRANSMIT			
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)	
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	
0	(T <sub>s</sub> T <sub>s</sub> )	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e				
0	59	19	1	263	3	1	1	131	4	4	2				ICE									62
0	50	14	1	/	/	/	1	/	/	/	2				ICE									64
0	52	14	1	/	/	/	1	/	/	/	2				ICE									60
0	07	13	1	352	1	1	30	5	5	2					ICE									62

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

TABLE II  
SYNOPTIC OBSERVATIONS

0516004 To 0610004

(4)

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD						
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud (0.9)	Type of C <sub>L</sub> (0.9)	Height of Low Cloud (0.9)	Type of C <sub>M</sub> (0.9)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>	
SHIP	4	1	333	213	00	5	33	20	98	16	1	213	18	2	2	4	7	0	44	400	8	3	4	30			
SHIP	4	1	332	224	06	0	35	15	98	00	1	237	14	0	0	9	0	0	6	41	24	8	0	1	99		
SHIP	4	1	330	237	12	0	01	14	98	02	0	227	14	0	0	9	0	0	6	44	00	8	0	1	95		
SHIP	4	1	338	252	18	8	23	18	94	02	2	240	17	8	0	6	80	6	4	00	7	8	0	3	35		

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE				DO NOT TRANSMIT						
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)		
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>		
0	T <sub>s</sub>	T <sub>s</sub>	T <sub>d</sub>	T <sub>d</sub>	1	d <sub>w</sub>	d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub>	d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub>	E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	53	14	1	01	2	2	1	33	4	4	2					ICE								64	
0	02	09	1	35	2	2	1	30	4	8	2					ICE								62	
0	51	08	1	01	/	/	1	33	/	/	2					ICE								60	
0	53	12	1	24	2	1	1	29	4	4	2					ICE								60	

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

TABLE II  
SYNOPTIC OBSERVATIONS

061600 u TO 071000 u

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT) (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE Barometer Corrected (Mb)	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD								
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)		Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud (0-9)	Type of C <sub>L</sub> (0-9)	Height of Low Cloud (0-9)	Type of C <sub>M</sub> (0-9)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
	Y	Q	L <sub>a</sub> L <sub>o</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>		
SHIP	5 1	329	260	00	6	22	17	98	03	1	210	175	45	30	646	10	8	56	36									
SHIP	5 1	325	260	06	8	27	17	98	02	2	217	17	865	1	244	00	8	87	35									
SHIP	3 1	324	240	12	4	28	15	98	02	1	200	17	365	1	244	00	8	37	45									
SHIP	5 1	324	230	18	0	29	14	89	02	0	196	18	00	90	1	244	00	8	00	75								

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE				DO NOT TRANSMIT									
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)					
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>					
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e								
0	03 13		1	21 21	1	34 47	2								ICE											60		
0	03 13		1	260	/	/	1	33	/	/	2				ICE											60		
0	20 18		1	28 21	1	29 32	2								ICE											60		
0	/	/	1	/	/	/	1	/	/	/	2				ICE											60		

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

6)

TABLE II  
SYNOPTIC OBSERVATIONS

071600Z TO 081000Z

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT) (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE Barometer Corrected (Mb)	CLOUDS				3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD								
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)		Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)		Amount of Low Cloud Type of $C_L$ (0-9)	Amount of Low Cloud Type of $C_L$ (0-9)	Height of Low Cloud Type of $C_M$ (0-9)	Height of Low Cloud Type of $C_H$ (0-9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	$L_a$ $L_a$ $L_a$	$L_o$ $L_o$ $L_o$	GG	N	dd	ff	VV	ww	W	ppp	TT	$N_h$	$C_L$	h	$C_M$	$C_H$	$D_s$	$V_s$	a	pp	8	$N_s$	C	$h_s$ $h_s$
SHIP	6	1	323	319	00	8	33	30	98	15	1	186	18	8	7	1	4	0	24	6	17	8	6	7	10	
SHIP	6	1	318	210	06	6	33	28	98	02	2	193	15	6	7	4	0	0	44	2	20	8	6	7	10	
SHIP	6	1	328	223	12	9	33	26	96	02	2	183	14	9	6	5	1	64	0	07	8	9	7	20		
SHIP	6	1	315	233	18	6	02	20	98	02	2	163	15	6	6	6	2	1	64	4	00	8	6	7	29	

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE				DO NOT TRANSMIT				
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
0	$T_s$ $T_s$	$T_d$ $T_d$	1	$d_w$ $d_w$	$P_w$	$H_w$	1	$d_w$ $d_w$	$P_w$	$H_w$	2	$I_s$	$E_s$ $E_s$	$R_s$	ICE	$C_2$	K	$D_i$	r	e	Celsius	Celsius	Celsius
0	00	14	1	01	32	1	33	3	4	2					ICE						60		
0	51	11	1	34	32	1	32	3	4	2					ICE						60		
0	57	09	1	33	11	1	33	1	1	2					ICE						62		
0	51	14	1	02	22	1	33	4	7	2					ICE						62		

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR

## SYNOPTIC OBSERVATIONS

091600Z TO 091000Z

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP				TIME (GMT)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE Barometer Corrected (Mb)	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD						
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)	Total Cloud Amt. (Coded)		Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			CLOUDS			Indicator	Amount (Eights)	Type	Height							
		2	3	4	5		6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
		Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	71	313	245	00	7	33	20	98	01	2	196	14	75	67	1	64	603	8	7640								
SHIP	71	313	253	06	7	33	28	98	02	2	224	15	01	1	1	68	227	8	9111								
SHIP	71	313	257	12	7	04	13	98	02	2	224	15	74	66	1	64	000	8	7840								
SHIP	71	308	263	18	7	01	20	98	01	2	244	18	75	61	1	74	310	8	7637								

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE						DO NOT TRANSMIT		
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e			
0	52 09	1	33 3 4	1	31 4 7	2									ICE						60		
0	51 57	1	33 3 8	1	30 5 7	2									ICE						60		
0	51 12	1	04 1 1	1	1 1 1 1	2									ICE						60		
0	06 19	1	01 1 1	1	01 5 9	2									ICE						62		

REMARKS

EXAMINED

USN, NAVIGATOR

TABLE II  
SYNOPTIC OBSERVATIONS

091600Z TO 101000Z

FIRST GROUP OF MESSAGE		Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE Barometer Corrected (Mb)	AIR TEMP. (°C)	CLOUDS						3-HOUR PRESSURE TENDENCY	SIGNIFICANT CLOUD						
			Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud (0-9)	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)	Course of Ship (0-9)	Speed of Ship (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
		Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>	
SHIP		1 1	308	246	00	4	04	26	98	02	1	217	234	16	0	0	242	03	8	5	8	50						
SHIP		1 1	309	236	06	2	08	24	98	01	0	234	17	216	0	0	242	03	8	2	8	50						
SHIP		1 1	309	218	12	1	06	20	98	01	0	234	18	1	16	0	0	242	03	8	1	8	50					
SHIP		1 1	309	208	18	0	05	15	99	02	0	234	21	0	0	0	0	0	0	1	4	400	8	0	0	0	0	
		1 1																										

Indicator	AIR- SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES			SWELL WAVES			ICE ACCRETION			SEA ICE								
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	12 18	1	04	24	1	03	57	2							ICE					
0	00 14	1	08	/	/	1	04	/	/	2				ICE						
0		1	06	/	/	1	02	/	/	2				ICE						
0	08 11	1	04	21	1	33	34	2						ICE						

DO NOT TRANSMIT		
Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
Celsius	Celsius	Celsius
62		
62		
62		
62		

REMARKS \_\_\_\_\_

EXAMINED \_\_\_\_\_

USN, NAVIGATOR